Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

4. (Currently Amended) A method of accessing files in a file access system, comprising:

establishing a field in a directory i-node memory structure for files corresponding to a directory cache hash table, said field containing a pointer to said directory cache hash table;

reading a directory into buffer cache, the directory having a storage device representation with each entry in the list of files containing a link to a corresponding offset where filenames are stored in memory;

converting the directory from the storage device representation to a faster representation, the faster representation representing a layout of the directory with an array of hash buckets which point to a list of files which may correspond to a specific i-node with each i-node having a field corresponding to the directory cache hash table; ~~and~~

searching the faster representation for a requested file by hashing the file i-node to a specific bucket which contains a list of files that may correspond to the requested file i-node;

if the offset contains a matching filename, completing the search, and if the filename is not found, checking the next entries sequentially until the filename is one of found and not found; and

wherein the storage device representation is maintained for backwards compatibility with pre-existing and older file access systems.

14. (Currently Amended) A computer server system, comprising:

an outer cabinet housing memory, an array of storage devices, at least one power supply providing electrical power to the computer server system~~,~~; and

at least one processor allocating memory for buffer cache and directory cache, with each entry in the list of files containing a link to a corresponding offset where filenames are stored in memory, the processor converting directories from a storage device layout to a faster representation which includes an array of hash buckets which point to a list of files which may correspond to a specific i-node node, with each i-node having a field corresponding to a directory

cache hash table, the faster representation including a pointer from a directory i-node memory structure to an associated hash table.

15. (Currently Amended) A network storage system, comprising:

an outer cabinet housing memory, an array of storage devices, at least one power supply providing electrical power to the network storage system, and

at least one processor allocating memory for buffer cache and directory cache, with each entry in the list of files containing a link to a corresponding offset where filenames are stored in memory, the processor converting directories from a storage device layout to a faster representation which includes an array of hash buckets which point to a list of files which may correspond to a specific i-node, the faster representation including a field in each i-node corresponding to a directory cache hash table and a pointer from a directory i-node memory structure to an associated hash table.

16. (Currently Amended) A method of searching a file access system for a requested file, comprising:

establishing a field in a directory i-node memory structure for files corresponding to a directory cache hash table, with each entry in the list of files containing a link to a corresponding offset where filenames are stored in memory, and said field containing a pointer to said directory cache hash table;

allocating memory for a directory cache and buffer cache hash table having an array of hash buckets which point to a list of files which may correspond to a specific i-node, the directory cache hash table storing directory layouts, and the step of allocating memory for the directory cache hash table including selecting directories to cache using at least one of the number of files in a directory and the frequency of use;

searching the directory cache hash table for a requested file by hashing the file i-node to a specific bucket which contains a list of files that may correspond to the requested file i-node, and if the file name in the directory cache hash table is not found, conventionally searching file structures; and

if the offset in the bucket contains a matching file name, pointing to where the name of the requested file is stored, to complete the search, and if the filename is not found checking the next entries sequentially until the filename is one of found and not found.

17. (Currently Amended) A method of accessing files in a file access system, comprising:

establishing a field in a directory i-node memory structure for files corresponding to a directory cache hash table, said field containing a pointer to said directory cache hash table;

reading a directory into buffer cache, with each entry in the list of files containing a link to a corresponding offset where filenames are stored in memory, and the directory having a storage device representation;

converting the directory to a faster representation, the faster representation including a pointer from the directory i-node to an associated hash table, the hash table containing a layout of the directory with an array of hash buckets which point to a list of files which may correspond to a specific i-node;

hashing selected directories into a hash table format according to at least one of a size of the directory, frequency of access, and a user selected criteria;

searching the faster representation for a requested file; ~~and~~

if the offset contains a matching filename, completing the search, and if the filename is not found, checking the next entries sequentially until the filename is one of found and not found; and

wherein the storage device representation is maintained for backwards compatibility with pre-existing file access systems.

18. (Currently Amended) A method of searching a file access system for a requested file, comprising:

establishing a field in a directory i-node memory structure for files corresponding to a directory cache hash table, said field containing a pointer to said directory cache hash table;

allocating a hash table, the hash table having hash buckets which point to a list of files which may correspond to a specific i-node;

hashing a directory into the hash table, said hashing a directory including hashing selected directories into a hash table format according to at least one of a size of the directory and frequency of access, and with each entry in the list of files containing a link to a corresponding offset where filenames are stored in memory;

linking hash buckets to offsets where a name of the requested file is stored;

establishing a pointer for the directory, the pointer pointing from a directory i-node to the hash table; ~~and~~

searching the hash buckets for a requested file, and

if the offset contains a matching filename, completing the search, and if the filename is not found, checking the next entries sequentially until the filename is one of found and not found.